

ASSEMBLY LANGUAGE CODE COMPILATION FOR AN INSTRUCTION-SET
ARCHITECTURE CONTAINING NEW INSTRUCTIONS USING THE PRIOR
ASSEMBLER

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ABSTRACT OF THE DISCLOSURE

A assembler extended instruction set architecture ISA is formed from a current ISA to which is added new instructions. Assembly of source code listing of a mixture of current and new assembly language instructions is accomplished by preprocessing the source code to create a temporary file that contains the old
10 instructions and data directives for each of the new assembly instructions that have, as the data arguments, the object code equivalent of such new instruction. The temporary file is then applied to the old assembler to produce, for each of the old assembly language instructions, the corresponding object code. The result, after linking, is an executable, machine language program for the new ISA.

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